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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,448	10/06/2001	Koya Suzuki	5000-4960	4076

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MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154

EXAMINER

GARCIA, ERNESTO

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/972,448	Applicant(s) SUZUKI ET AL.	
	Examiner Ernesto Garcia	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/5/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,17-20 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) 4,11,13 and 17-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-27 is/are allowed.
- 6) ☒ Claim(s) 1,3,5-10,12,14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings were received on 2/5/04. These drawings are acceptable.

Claim Objections

Claim 3 is objected to because of the following informalities:

regarding claim 3, it is not clear how the outer diameter of the step portion is not smaller than the inner diameter of the pressure insertion portion when claim 1 requires that the outer diameter of the step portion be set between the inner diameter of the pressure insertion portion. For a diameter to be in between, the diameter has to have a dimension less than a point of reference, i.e., the inner diameter of the pressure insertion portion. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 5-7, 14 and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese publication, JP2000-120649A by Yasuchika et al. (see marked-up attachment).

Regarding claim 1, Yasuchika et al. disclose in Figures 7 and 8 a first member **3**, and second member **2**. The first member **3** has a serration portion **7b** provided at a pressure insertion end portion **A3** of the first member **3**. The second member **2** has a pressure insertion portion **A5**. The first member **3** has a surface contact portion **A6** at location adjacent to the serration portion **7b**. The surface contact portion **A6** includes a step portion **A7** provided at a leading end portion **A8** of the pressure insertion end portion **A3** at a leading end side from the serration portion **7b**. An outer diameter **A9** of the step portion **A7** is set between an inner diameter **A10** of the pressure insertion portion **A5** and an outer diameter **A11** of the serration portion **7b**. The first member **3** is a metal yoke of a propeller shaft and the second member **2** is a fiberglass reinforced plastic cylinder of the propeller shaft (see English abstract).

Regarding claim 5, the first member **3** is a metal member; and the second member **2** is a resin member (see abstract).

Regarding claim 6, after the second member **2** is joined to the serration portion **7b**, the step portion **A7** is in non-contact with the second member **2**.

Regarding claim 7, the first member **3** has a chamfering portion **3b** extended from the leading end portion **A8** to the step portion **A7**.

Regarding claim 14, applicant is reminded that the method of forming the step portion is not germane to the issue of patentability of the device itself. Therefore, this limitation has been given limited patentable weight. See MPEP ' 2113.

Regarding claim 15, the step portion **A7** is formed cylindrically between the leading end portion **A8** and the serration portion **7b**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese publication, JP2000-120649A by Yasuchika et al., in view of Barnard, 4,307,833.

Regarding claim 3, Yasuchika et al. disclose the serration portion **7b** is provided to an outer circumferential surface of the pressure insertion end portion **A3**. The

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pressure insertion portion **A5** of the second member **2** is hollow. The outer diameter **A9** of the step portion **A7** is smaller than the outer diameter **A11** of the serration portion **7b**. However, the outer diameter **A9** of the step portion **A7** is not smaller than the inner diameter **A10** of the pressure insertion portion **A5**. Barnard teaches, in Figure 2, an outer diameter of a step portion **24** is not smaller (but larger) than an inner diameter **26** of the pressure insertion portion **12** to expand the inner diameter of the pressure insertion portion (Fig. 3) so as to make a interference fit connection. Therefore, as taught by Barnard, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the outer diameter of the step portion be not smaller than an inner diameter of the pressure insertion portion to make an interference fit connection by expanding the inner diameter of the pressure insertion portion.

Allowable Subject Matter

Claims 24-29 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

regarding claims 24-29, the prior art of record does not disclose or suggest a joining structure comprising a step portion connected to a serration portion through an inclined surface; there is no motivation to place an inclined surface on the Japanese publication.

Response to Arguments

Applicant's arguments with respect to claims 1,3,5-10,12,14 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has argued that the Japanese publication '649 does not teach or suggest an outer diameter of the step portion equal to an inner diameter of the pressure insertion portion. Applicant is reminded that this limitation does not have to be met as the clause is in the alternative form, "or". The Office has met the burden of meeting "set between the diameter of the pressure insertion portion and an outer diameter of the serration portion"; therefore, the claim anticipates the Japanese patent.

Conclusion

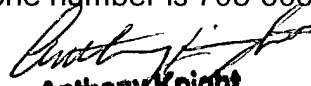
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 703-308-8606. The examiner can normally be reached from 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.


Anthony Knight
Supervisory Patent Examiner
Group 3600

Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3600

E.G.

April 5, 2004

Attachment: one marked-up copy of Japanese publication, JP2000-120649A.